## **AMENDMENTS TO THE CLAIMS**

	1.	(Cancelled)
	2.	(Cancelled)
carbo	3. xyl grou	(withdrawn) The compound of claim 1, wherein the acyl group for $X$ is a $Ip$ .
	4.	(Cancelled)
	5.	(Cancelled)
	6.	(Withdrawn) The compound of claim 1, wherein R <sup>4</sup> is an amino group.
	7.	(Withdrawn) The compound of claim 1, wherein L is a $C_{1-10}$ alkylene
group	•	
	8.	(Cancelled)
	9.	(Cancelled)
	10.	(Cancelled)
	11.	(Cancelled)
	12.	(Withdrawn) A prodrug of a compound of claim 1 or a salt thereof.
	13.	(Cancelled)
	14.	(Cancelled)
	15.	(Cancelled)
	16.	(Cancelled)
	17.	(Cancelled)
	18.	(Cancelled)

Application No. 10/577,561 Amendment dated February 4, 2009 Reply to Office Action of September 5, 2008 Docket No.: 66540(46590)

- 19. (Cancelled)
- 20. (Cancelled)
- 21. (Cancelled)
- 22. (New) A compound represented by the formula

$$R^2$$
 $N$ 
 $R^1$ 
 $X-Q$ 
 $L$ 
 $R^4$ 

## wherein

R<sup>1</sup> and R<sup>2</sup> are the same or different and each is

(1) a  $C_{1-10}$  alkyl group optionally substituted by 1 to 3 substituent(s) selected from a  $C_{3-10}$  cycloalkyl group, a  $C_{1-6}$  alkoxy-carbonyl group and a  $C_{1-6}$  alkoxy group;

(2) a C<sub>6-14</sub> aryl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group; or

(3) a C<sub>7-13</sub> aralkyl group;

R<sup>3</sup> is a C<sub>6-14</sub> aryl group optionally substituted by 1 to 3 substituent(s) selected from a C<sub>1-6</sub> alkyl group optionally substituted by 1 to 3 halogen atom(s), a halogen atom, a C<sub>1-6</sub> alkoxy-carbonyl group, a carboxyl group, a hydroxy group, and a C<sub>1-6</sub> alkoxy group optionally substituted by 1 to 3 halogen atom(s); R<sup>4</sup> is an amino group;

L is a C<sub>1-10</sub> alkylene group;

Q is a bond, a C<sub>1-10</sub> alkylene group or a C<sub>2-10</sub> alkenylene group; and

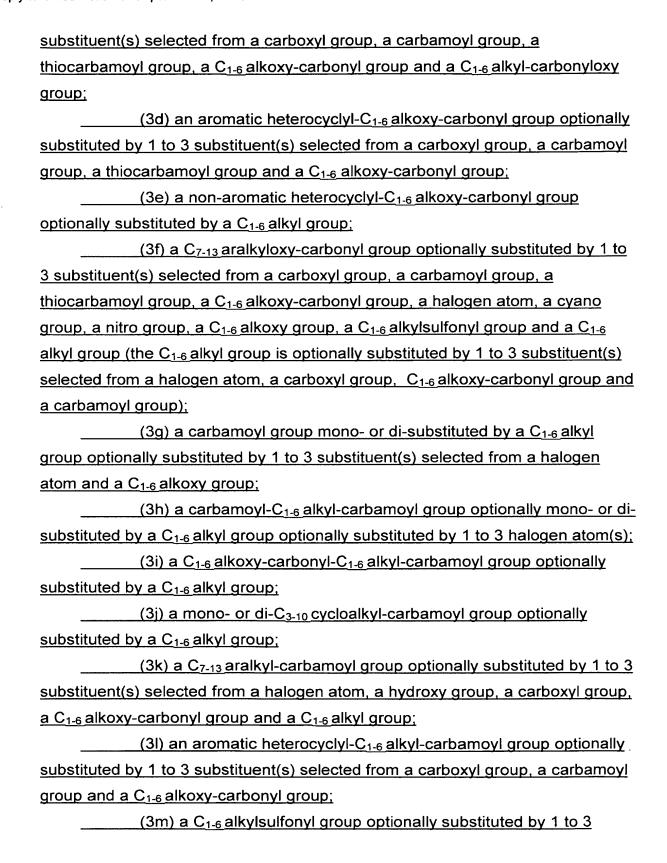
X is

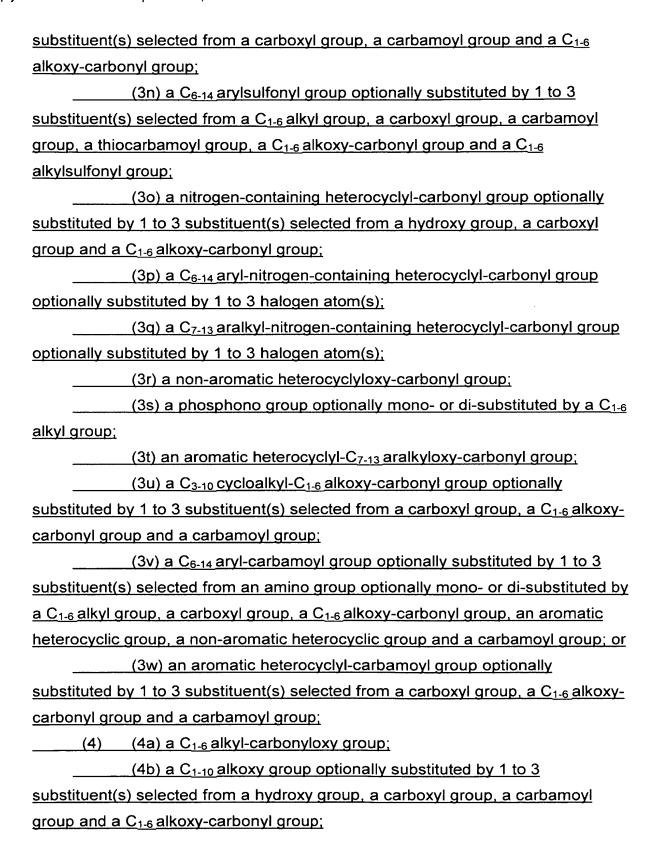
(2) a cyano group;

(3) (3a) a carboxyl group;

(3b) a carbamoyl group;

(3c) a C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by 1 to 3





(4c) a C <sub>6-14</sub> aryloxy group optionally substituted by 1 to 3
substituent(s) selected from a halogen atom, a carboxyl group, a C <sub>1-6</sub> alkoxy-
carbonyl group, a C <sub>1-6</sub> alkylthio group, a carbamoyl group, a C <sub>1-6</sub> alkoxy group, a
$C_{1-6}$ alkylsulfonyl group, a $C_{1-6}$ alkylsulfinyl group and a $C_{1-6}$ alkyl group (the $C_{1-6}$
alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a
carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group);
(4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally
substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group (the C <sub>1-6</sub> alkyl
group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl
group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a
C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group;
(4e) a fused aromatic heterocyclyloxy group optionally substituted
by 1 to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl
group and a carbamoyl group;
(4f) an aromatic heterocyclyl-C <sub>1-6</sub> alkoxy group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-
carbonyl group and a carbamoyl group; or
(4g) an aromatic heterocyclyl-C <sub>6-14</sub> aryloxy group;
(5) (5a) a C <sub>1-6</sub> alkylthio group optionally substituted by 1 to 3
substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl
group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(5b) a C <sub>6-14</sub> arylthio group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl group, a C <sub>1</sub>
<sub>6</sub> alkylthio group and a carbamoyl group; or
(5c) a 5- or 6-membered aromatic heterocyclylthio group optionally
substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group, a carboxyl
group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group;
(6) (6a) an amino group;
(6b) a C <sub>1-6</sub> alkoxy-carbonyl-C <sub>1-10</sub> alkylamino group;
(6c) a carboxy-C <sub>1-10</sub> alkylamino group;
(6d) a C <sub>7-13</sub> aralkyloxy-carbonylamino group optionally substituted

by 1 to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl
group and a carbamoyl group;
(6e) a carbamoylamino group;
(6f) a mono- or di-C <sub>1-6</sub> alkyl-carbamoylamino group;
(6g) a C <sub>1-6</sub> alkylsulfonylamino group;
(6h) a C <sub>6-14</sub> arylsulfonylamino group optionally substituted by a C <sub>1-6</sub>
alkylsulfonyl group;
(6i) an aromatic heterocyclyl-sulfonylamino group optionally
substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group and a mono-
or di-(C <sub>1-6</sub> alkyl-carbonyl)-amino group;
(6j) a mono- or di-(C <sub>1-6</sub> alkyl-carbonyl)-amino group;
(6k) a C <sub>3-10</sub> cycloalkyl-carbonylamino group;
(6l) a C <sub>6-14</sub> aryl-carbonylamino group optionally substituted by 1 to 3
substituent(s) selected from a halogen atom, a cyano group, an optionally
halogenated $C_{1-6}$ alkyl group, a $C_{1-6}$ alkoxy group, a carboxyl group, a $C_{1-6}$ alkoxy-
carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic
group and a carbamoyl group;
(6m) a C <sub>7-13</sub> aralkyl-carbonylamino group;
(6n) a C <sub>8-13</sub> arylalkenyl-carbonylamino group;
(6o) an aromatic heterocyclyl-carbonylamino group optionally
substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group, a C <sub>6-14</sub> aryl
group, a $C_{7-13}$ aralkyl group, a $C_{1-6}$ alkoxy group, a carboxyl group, a $C_{1-6}$ alkoxy-
carbonyl group and a carbamoyl group;
(6p) a nitrogen-containing heterocyclyl-carbonylamino group
optionally substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group (the
$C_{1-6}$ alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a
carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group), a carboxyl
group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group;
(6q) a C <sub>6-14</sub> aryl-nitrogen-containing heterocyclyl-carbonylamino
group;
(6r) a tetrahydropyranylcarbonylamino group;

(6s) a 4-oxo-4,5,6,7-tetrahydro-1-benzofuranyl-carbonylamino
group;
(6t) a C <sub>1-6</sub> alkoxy-carbonylamino group optionally substituted by a
C <sub>1-6</sub> alkoxy-carbonyl group;
(6u) a C <sub>6-14</sub> aryloxy-carbonylamino group optionally substituted by 1
to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl group
and a carbamoyl group;
(6v) a C <sub>7-13</sub> aralkyl-carbamoylamino group; or
(6w) an aromatic heterocyclyl-carbamoylamino group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-
carbonyl group and a carbamoyl group; or
(7) (7a) tetrazolyl;
(7b) oxoimidazolidinyl;
(7c) dioxoimidazolidinyl optionally substituted by a C <sub>1-6</sub> alkyl group
optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and
a C <sub>1-6</sub> alkoxy-carbonyl group;
(7d) oxopiperazinyl;
(7e) dioxopiperazinyl;
(7f) oxodihydrooxadiazolyl;
(7g) dioxoisoindolyl;
(7h) oxazolyl optionally substituted by a C <sub>1-6</sub> alkoxy-carbonyl group;
(7i) dioxooxazolidinyl or dioxothiazolidinyl, each of which is
optionally substituted by a C <sub>1-6</sub> alkyl group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(7j) 4-oxo-2-thioxo-1,3-thiazolidin-5-yl or 4-oxo-2-thioxo-1,3-
oxazolidin-5-yl, each of which is optionally substituted by a C <sub>1-6</sub> alkyl group
optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and
<u>a C<sub>1-6</sub> alkoxy-carbonyl group;</u>
(7k) 1,3(2H,5H)-dioxo-tetrahydroimidazo[1,5-a]pyridinyl;
(7l) 1,3(2H,5H)-dioxo-10,10a-dihydroimidazo[1,5-b]isoquinolinyl; or
(7m) a C <sub>6 14</sub> aryl group optionally substituted by a C <sub>1.6</sub> alkoxy-

carbonyl group;
provided that
when X is an ethoxycarbonyl group, then Q is a $C_{1-10}$ alkylene group or a $C_{2-10}$
alkenylene group
or a salt thereof.
23. (New) The compound of claim 22, wherein X is
(2) a cyano group;
(3) (3a) a carboxyl group;
(3b) a carbamoyl group;
(3c) a C <sub>1-6</sub> alkoxy-carbonyl group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group, a carbamoyl group, a
thiocarbamoyl group, a $C_{1-6}$ alkoxy-carbonyl group and a $C_{1-6}$ alkyl-carbonyloxy
group;
(3d) an aromatic heterocyclyl-C <sub>1-6</sub> alkoxy-carbonyl group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl
group, a thiocarbamoyl group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(3e) a non-aromatic heterocyclyl-C <sub>1-6</sub> alkoxy-carbonyl group
optionally substituted by a C <sub>1-6</sub> alkyl group;
(3f) a C <sub>7-13</sub> aralkyloxy-carbonyl group optionally substituted by 1 to
3 substituent(s) selected from a carboxyl group, a carbamoyl group, a
thiocarbamoyl group, a C <sub>1-6</sub> alkoxy-carbonyl group, a halogen atom, a cyano
group, a nitro group, a $C_{1-6}$ alkoxy group, a $C_{1-6}$ alkylsulfonyl group and a $C_{1-6}$
alkyl group (the C <sub>1-6</sub> alkyl group is optionally substituted by 1 to 3 substituent(s)
selected from a halogen atom, a carboxyl group, C <sub>1-6</sub> alkoxy-carbonyl group and
a carbamoyl group);
(3g) a carbamoyl group mono- or di-substituted by a C <sub>1-6</sub> alkyl
group optionally substituted by 1 to 3 substituent(s) selected from a halogen
atom and a C <sub>1-6</sub> alkoxy group;
(3h) a carbamoyl-C <sub>1-6</sub> alkyl-carbamoyl group optionally mono- or di-
substituted by a C <sub>1-6</sub> alkyl group optionally substituted by 1 to 3 halogen atom(s);
(3i) a C <sub>1-6</sub> alkoxy-carbonyl-C <sub>1-6</sub> alkyl-carbamoyl group optionally

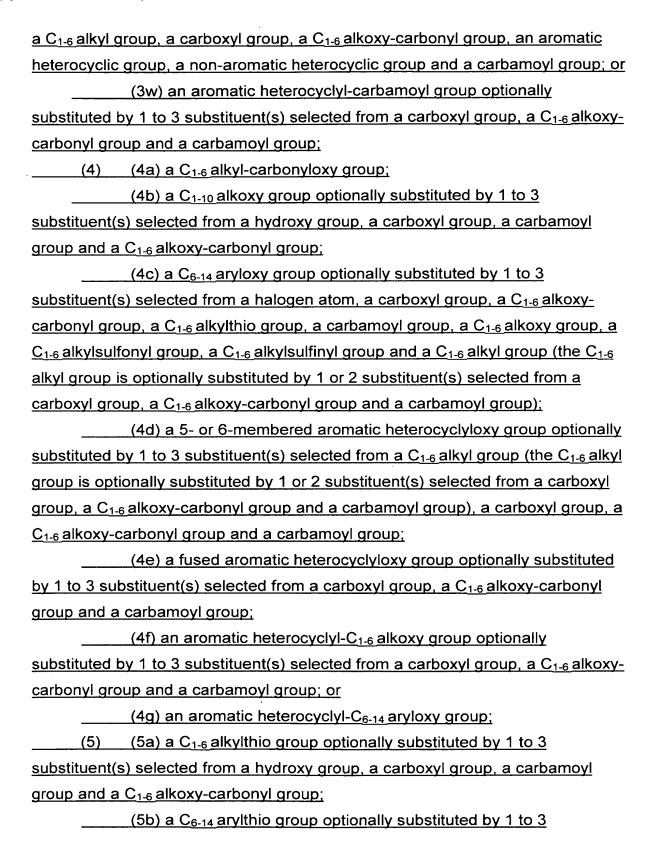
substituted by a C <sub>1-6</sub> alkyl group;
(3j) a mono- or di-C <sub>3-10</sub> cycloalkyl-carbamoyl group optionally
substituted by a C <sub>1-6</sub> alkyl group;
(3k) a C <sub>7-13</sub> aralkyl-carbamoyl group optionally substituted by 1 to 3
substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group,
a C <sub>1-6</sub> alkoxy-carbonyl group and a C <sub>1-6</sub> alkyl group;
(3l) an aromatic heterocyclyl-C <sub>1-6</sub> alkyl-carbamoyl group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl
group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(3m) a C <sub>1-6</sub> alkylsulfonyl group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group, a carbamoyl group and a C <sub>1-6</sub>
alkoxy-carbonyl group;
(3n) a C <sub>6-14</sub> arylsulfonyl group optionally substituted by 1 to 3
substituent(s) selected from a C <sub>1-6</sub> alkyl group, a carboxyl group, a carbamoyl
group, a thiocarbamoyl group, a $C_{1-6}$ alkoxy-carbonyl group and a $C_{1-6}$
alkylsulfonyl group;
(3o) a nitrogen-containing heterocyclyl-carbonyl group optionally
substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl
group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(3p) a C <sub>6-14</sub> aryl-nitrogen-containing heterocyclyl-carbonyl group
optionally substituted by 1 to 3 halogen atom(s);
(3q) a C <sub>7-13</sub> aralkyl-nitrogen-containing heterocyclyl-carbonyl group
optionally substituted by 1 to 3 halogen atom(s);
(3r) a non-aromatic heterocyclyloxy-carbonyl group;
(3s) a phosphono group optionally mono- or di-substituted by a $C_{1-6}$
alkyl group;
(3t) an aromatic heterocyclyl-C <sub>7-13</sub> aralkyloxy-carbonyl group;
(3u) a C <sub>3-10</sub> cycloalkyl-C <sub>1-6</sub> alkoxy-carbonyl group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-
carbonyl group and a carbamoyl group;
(3v) a C <sub>6-14</sub> aryl-carbamoyl group optionally substituted by 1 to 3

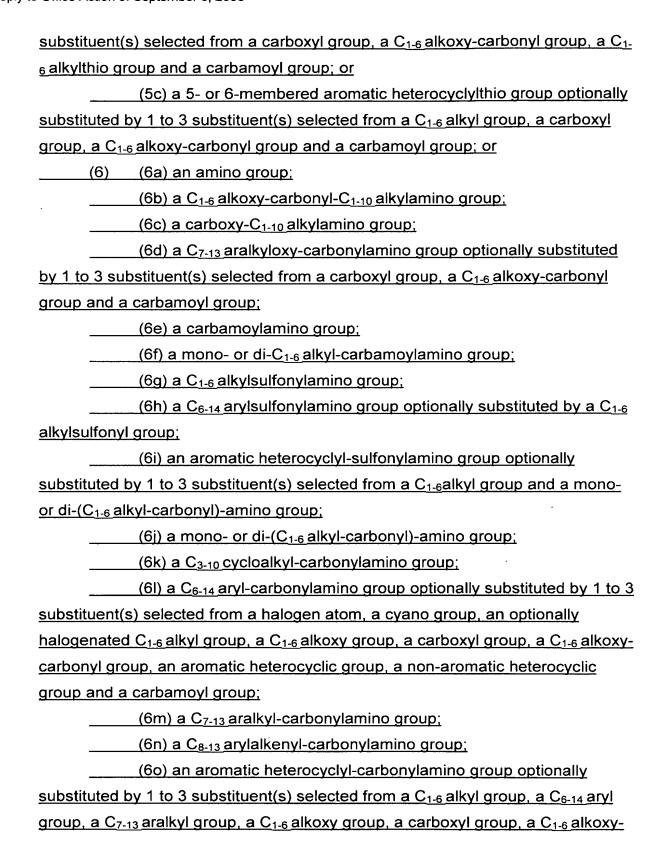
substituent(s) selected from an amino group optionally mono- or di-substituted by
a $C_{1-6}$ alkyl group, a carboxyl group, a $C_{1-6}$ alkoxy-carbonyl group, an aromatic
heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group; or
(3w) an aromatic heterocyclyl-carbamoyl group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a $C_{1-6}$ alkoxy-
carbonyl group and a carbamoyl group;
(4) (4a) a C <sub>1-6</sub> alkyl-carbonyloxy group;
(4b) a C <sub>1-10</sub> alkoxy group optionally substituted by 1 to 3
substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl
group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(4c) a C <sub>6-14</sub> aryloxy group optionally substituted by 1 to 3
substituent(s) selected from a halogen atom, a carboxyl group, a C <sub>1-6</sub> alkoxy-
carbonyl group, a C <sub>1-6</sub> alkylthio group, a carbamoyl group, a C <sub>1-6</sub> alkoxy group, a
$C_{1-6}$ alkylsulfonyl group, a $C_{1-6}$ alkylsulfinyl group and a $C_{1-6}$ alkyl group (the $C_{1-6}$
alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a
carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group);
(4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally
substituted by 1 to 3 substituent(s) selected from a $C_{1-6}$ alkyl group (the $C_{1-6}$ alkyl
group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl
group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a
C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group;
(4e) a fused aromatic heterocyclyloxy group optionally substituted
by 1 to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl
group and a carbamoyl group;
(4f) an aromatic heterocyclyl-C <sub>1-6</sub> alkoxy group optionally
$\underline{\text{substituted by 1 to 3 substituent(s)}} \ \underline{\text{selected from a carboxyl group, a C}_{\text{1-6}}} \ \underline{\text{alkoxy-}}$
carbonyl group and a carbamoyl group; or
(4g) an aromatic heterocyclyl-C <sub>6-14</sub> aryloxy group;
(5) (5a) a C <sub>1-6</sub> alkylthio group optionally substituted by 1 to 3
substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl
group and a C <sub>1-6</sub> alkoxy-carbonyl group;

(5b) a C <sub>6-14</sub> arylthio group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group, a $C_{1-6}$ alkoxy-carbonyl group, a $C_{1-6}$
<sub>6</sub> alkylthio group and a carbamoyl group; or
(5c) a 5- or 6-membered aromatic heterocyclylthio group optionally
substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group, a carboxyl
group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group; or
(7) (7a) tetrazolyl;
(7b) oxoimidazolidinyl;
(7c) dioxoimidazolidinyl optionally substituted by a C <sub>1-6</sub> alkyl group
optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and
a C <sub>1-6</sub> alkoxy-carbonyl group;
(7d) oxopiperazinyl;
(7e) dioxopiperazinyl;
(7f) oxodihydrooxadiazolyl;
(7g) dioxoisoindolyl;
(7h) oxazolyl optionally substituted by a C <sub>1-6</sub> alkoxy-carbonyl group;
(7i) dioxooxazolidinyl or dioxothiazolidinyl, each of which is
optionally substituted by a $C_{1-6}$ alkyl group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(7j) 4-oxo-2-thioxo-1,3-thiazolidin-5-yl or 4-oxo-2-thioxo-1,3-
oxazolidin-5-yl, each of which is optionally substituted by a C <sub>1-6</sub> alkyl group
optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and
a C <sub>1-6</sub> alkoxy-carbonyl group;
(7k) 1,3(2H,5H)-dioxo-tetrahydroimidazo[1,5-a]pyridinyl;
(7I) 1,3(2H,5H)-dioxo-10,10a-dihydroimidazo[1,5-b]isoquinolinyl; or
(7m) a $C_{6-14}$ aryl group optionally substituted by a $C_{1-6}$ alkoxy-
carbonyl group.
24. (New) The compound of claim 22, wherein R <sup>1</sup> and R <sup>2</sup> are the same
or different and each is a C1-10 alkyl group optionally substituted by 1 to 3
substituent(s) selected from a C <sub>3-10</sub> cycloalkyl group, a C <sub>1-6</sub> alkoxy-carbonyl group
and a C <sub>1-6</sub> alkoxy group.

25. (New) The compound of claim 22, wherein R3 is a C6-14 aryl
group optionally substituted by 1 to 3 substituent(s) selected from a C1-6 alkyl
group optionally substituted by 1 to 3 halogen atom(s) and a halogen atom.
26. (New) The compound of claim 22, wherein Q is a bond.
27. (New) The compound of claim 1, wherein X is
(3) (3a) a carboxyl group;
(3b) a carbamoyl group;
(3c) a C <sub>1-6</sub> alkoxy-carbonyl group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group, a carbamoyl group, a
thiocarbamoyl group, a $C_{1-6}$ alkoxy-carbonyl group and a $C_{1-6}$ alkyl-carbonyloxy
group;
(3d) an aromatic heterocyclyl-C <sub>1-6</sub> alkoxy-carbonyl group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl
group, a thiocarbamoyl group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(3e) a non-aromatic heterocyclyl-C <sub>1-6</sub> alkoxy-carbonyl group
optionally substituted by a C <sub>1-6</sub> alkyl group;
(3f) a C <sub>7-13</sub> aralkyloxy-carbonyl group optionally substituted by 1 to
3 substituent(s) selected from a carboxyl group, a carbamoyl group, a
thiocarbamoyl group, a C <sub>1-6</sub> alkoxy-carbonyl group, a halogen atom, a cyano
group, a nitro group, a $C_{1-6}$ alkoxy group, a $C_{1-6}$ alkylsulfonyl group and a $C_{1-6}$
alkyl group (the C <sub>1-6</sub> alkyl group is optionally substituted by 1 to 3 substituent(s)
selected from a halogen atom, a carboxyl group, C <sub>1-6</sub> alkoxy-carbonyl group and
a carbamoyl group);
(3g) a carbamoyl group mono- or di-substituted by a C <sub>1-6</sub> alkyl
group optionally substituted by 1 to 3 substituent(s) selected from a halogen
atom and a C <sub>1-6</sub> alkoxy group;
(3h) a carbamoyl-C <sub>1-6</sub> alkyl-carbamoyl group optionally mono- or di-
substituted by a C <sub>1-6</sub> alkyl group optionally substituted by 1 to 3 halogen atom(s);
(3i) a C <sub>1-6</sub> alkoxy-carbonyl-C <sub>1-6</sub> alkyl-carbamoyl group optionally
substituted by a C <sub>1-6</sub> alkyl group:

(3j) a mono- or di-C <sub>3-10</sub> cycloalkyl-carbamoyl group optionally
substituted by a C <sub>1-6</sub> alkyl group;
(3k) a C <sub>7-13</sub> aralkyl-carbamoyl group optionally substituted by 1 to 3
substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group,
a C <sub>1-6</sub> alkoxy-carbonyl group and a C <sub>1-6</sub> alkyl group;
(3I) an aromatic heterocyclyl-C <sub>1-6</sub> alkyl-carbamoyl group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl
group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(3m) a C <sub>1-6</sub> alkylsulfonyl group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group, a carbamoyl group and a $C_{1-6}$
alkoxy-carbonyl group;
(3n) a C <sub>6-14</sub> arylsulfonyl group optionally substituted by 1 to 3
substituent(s) selected from a C <sub>1-6</sub> alkyl group, a carboxyl group, a carbamoyl
group, a thiocarbamoyl group, a $C_{1-6}$ alkoxy-carbonyl group and a $C_{1-6}$
alkylsulfonyl group;
(3o) a nitrogen-containing heterocyclyl-carbonyl group optionally
substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl
group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(3p) a C <sub>6-14</sub> aryl-nitrogen-containing heterocyclyl-carbonyl group
optionally substituted by 1 to 3 halogen atom(s);
(3q) a C <sub>7-13</sub> aralkyl-nitrogen-containing heterocyclyl-carbonyl group
optionally substituted by 1 to 3 halogen atom(s);
(3r) a non-aromatic heterocyclyloxy-carbonyl group;
(3s) a phosphono group optionally mono- or di-substituted by a $C_{1-6}$
alkyl group;
(3t) an aromatic heterocyclyl-C <sub>7-13</sub> aralkyloxy-carbonyl group;
(3u) a C <sub>3-10</sub> cycloalkyl-C <sub>1-6</sub> alkoxy-carbonyl group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-
carbonyl group and a carbamoyl group;
(3v) a C <sub>6-14</sub> aryl-carbamoyl group optionally substituted by 1 to 3
substituent(s) selected from an amino group optionally mono- or di-substituted by





carbonyl group and a carbamoyl group;
(6p) a nitrogen-containing heterocyclyl-carbonylamino group
optionally substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group (the
C <sub>1-6</sub> alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a
carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group), a carboxyl
group, a $C_{1-6}$ alkoxy-carbonyl group and a carbamoyl group;
(6q) a C <sub>6-14</sub> aryl-nitrogen-containing heterocyclyl-carbonylamino
group;
(6r) a tetrahydropyranylcarbonylamino group;
(6s) a 4-oxo-4,5,6,7-tetrahydro-1-benzofuranyl-carbonylamino
group;
(6t) a C <sub>1-6</sub> alkoxy-carbonylamino group optionally substituted by a
C <sub>1-6</sub> alkoxy-carbonyl group;
(6u) a C <sub>6-14</sub> aryloxy-carbonylamino group optionally substituted by 1
to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl group
and a carbamoyl group;
(6v) a C <sub>7-13</sub> aralkyl-carbamoylamino group; or
(6w) an aromatic heterocyclyl-carbamoylamino group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a $C_{1-6}$ alkoxy-
carbonyl group and a carbamoyl group.
28. (New) The compound of claim 22, wherein X is a carboxyl group.
29. (New) The compound of claim 22, which is 5-(aminomethyl)-2-
methyl-4-(4-methylphenyl)-6-neopentylnicotinic acid;
5-(aminomethyl)-6-isobutyl-2-methyl-4-(4-methylphenyl)nicotinic acid;
methyl 3-{[5-(aminomethyl)-6-isobutyl-2-methyl-4-(4-methylphenyl)pyridin-3-
yl]methoxy}-1-methyl-1H-pyrazole-4-carboxylate;
{[2-isobutyl-6-methyl-4-(4-methylphenyl)-5-(2-morpholin-4-yl-2-oxoethyl)pyridin-
3-yl]methyl}amine;
methyl 3-({[5-(aminomethyl)-6-isobutyl-2-methyl-4-(4-methylphenyl)pyridin-3-
yl]acetyl}amino)benzoate;

or a salt thereof.

N-[5-(aminomethyl)-6-isobutyl-2-methyl-4-(4-methylphenyl)pyridin-3-yl]isoxazole-4-carboxamide,

18

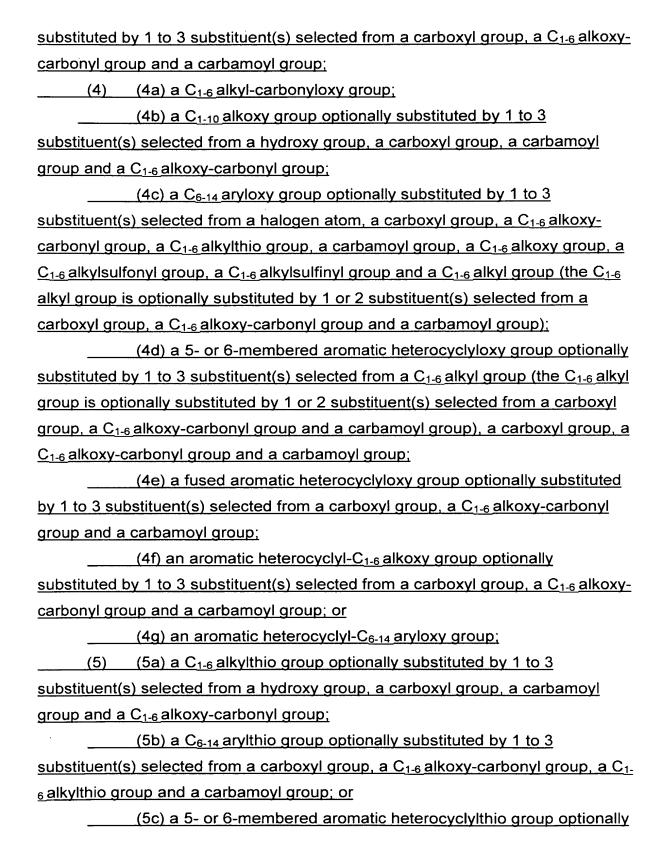
- 30. (New) A pharmaceutical agent comprising a compound of claim 22 or a salt thereof.
- 31. (New) The pharmaceutical agent of claim 30, which is an agent for the prophylaxis or treatment of diabetes, diabetic complications, impaired glucose tolerance or obesity.
- 32. (New) A peptidase inhibitor comprising a compound of claim 22 or a salt thereof.
- 33. (New) The inhibitor of claim 32, wherein the peptidase is dipeptidyl dipeptidase-IV.
- 34. (New) A method for the prophylaxis or treatment of diabetes, diabetic complications, impaired glucose tolerance or obesity in a mammal, which comprises administering a compound of claim 22 or a salt thereof to the mammal.
- 35. (New) A method of inhibiting peptidase in a mammal, which comprises administering a compound of claim 22 or a salt thereof to the mammal.
- 36. (New) A production method of a compound represented by the formula

$$\begin{array}{c|c}
R^2 & N & R^1 \\
\hline
Xa-Q & La-CH_2-NH_2 \\
R^3 & (I-a)
\end{array}$$

wherein

## R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and Q are as defined in claim 22; La is a bond or a C<sub>1-9</sub> alkylene group; and Xa is (3) (3a) a carboxyl group; (3b) a carbamovl group; (3c) a C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a C<sub>1-6</sub> alkyl-carbonyloxy group; (3d) an aromatic heterocyclyl-C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group and a C<sub>1-6</sub> alkoxy-carbonyl group; (3e) a non-aromatic heterocyclyl-C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by a C<sub>1-6</sub> alkyl group; (3f) a C<sub>7-13</sub> aralkyloxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C<sub>1-6</sub> alkoxy-carbonyl group, a halogen atom, a cyano group, a nitro group, a C<sub>1-6</sub> alkoxy group, a C<sub>1-6</sub> alkylsulfonyl group and a C<sub>1-6</sub> alkyl group (the C<sub>1-6</sub> alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group); (3g) a carbamoyl group mono- or di-substituted by a C<sub>1-6</sub> alkyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom and a C<sub>1-6</sub> alkoxy group; (3h) a carbamoyl-C<sub>1-6</sub> alkyl-carbamoyl group optionally mono- or disubstituted by a $C_{1-6}$ alkyl group optionally substituted by 1 to 3 halogen atom(s); (3i) a C<sub>1-6</sub> alkoxy-carbonyl-C<sub>1-6</sub> alkyl-carbamoyl group optionally substituted by a C<sub>1-6</sub> alkyl group; (3i) a mono- or di-C<sub>3-10</sub> cycloalkyl-carbamoyl group optionally substituted by a C<sub>1-6</sub> alkyl group; (3k) a C<sub>7-13</sub> aralkyl-carbamoyl group optionally substituted by 1 to 3

substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group,
a C <sub>1-6</sub> alkoxy-carbonyl group and a C <sub>1-6</sub> alkyl group;
(3I) an aromatic heterocyclyl-C <sub>1-6</sub> alkyl-carbamoyl group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl
group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(3m) a C <sub>1-6</sub> alkylsulfonyl group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group, a carbamoyl group and a C <sub>1-6</sub>
alkoxy-carbonyl group;
(3n) a C <sub>6-14</sub> arylsulfonyl group optionally substituted by 1 to 3
substituent(s) selected from a C <sub>1-6</sub> alkyl group, a carboxyl group, a carbamoyl
group, a thiocarbamoyl group, a $C_{1-6}$ alkoxy-carbonyl group and a $C_{1-6}$
alkylsulfonyl group;
(3o) a nitrogen-containing heterocyclyl-carbonyl group optionally
substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl
group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(3p) a C <sub>6-14</sub> aryl-nitrogen-containing heterocyclyl-carbonyl group
optionally substituted by 1 to 3 halogen atom(s);
(3q) a C <sub>7-13</sub> aralkyl-nitrogen-containing heterocyclyl-carbonyl group
optionally substituted by 1 to 3 halogen atom(s);
(3r) a non-aromatic heterocyclyloxy-carbonyl group;
(3s) a phosphono group optionally mono- or di-substituted by a C <sub>1-6</sub>
alkyl group;
(3t) an aromatic heterocyclyl-C <sub>7-13</sub> aralkyloxy-carbonyl group;
(3u) a C <sub>3-10</sub> cycloalkyl-C <sub>1-6</sub> alkoxy-carbonyl group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a $C_{1-6}$ alkoxy-
carbonyl group and a carbamoyl group;
(3v) a C <sub>6-14</sub> aryl-carbamoyl group optionally substituted by 1 to 3
substituent(s) selected from an amino group optionally mono- or di-substituted by
a $C_{1-6}$ alkyl group, a carboxyl group, a $C_{1-6}$ alkoxy-carbonyl group, an aromatic
heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group; or
(3w) an aromatic heterocyclyl-carbamoyl group optionally



substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group, a carboxyl
group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group;
(6) (6a) an amino group;
(6b) a C <sub>1-6</sub> alkoxy-carbonyl-C <sub>1-10</sub> alkylamino group;
(6c) a carboxy-C <sub>1-10</sub> alkylamino group;
(6d) a C <sub>7-13</sub> aralkyloxy-carbonylamino group optionally substituted
by 1 to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl
group and a carbamoyl group;
(6e) a carbamoylamino group;
(6f) a mono- or di-C <sub>1-6</sub> alkyl-carbamoylamino group;
(6g) a C <sub>1-6</sub> alkylsulfonylamino group;
(6h) a $C_{6-14}$ arylsulfonylamino group optionally substituted by a $C_{1-6}$
alkylsulfonyl group;
(6i) an aromatic heterocyclyl-sulfonylamino group optionally
substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group and a mono-
or di-(C <sub>1-6</sub> alkyl-carbonyl)-amino group;
(6j) a mono- or di-(C <sub>1-6</sub> alkyl-carbonyl)-amino group;
(6k) a C <sub>3-10</sub> cycloalkyl-carbonylamino group;
(6l) a C <sub>6-14</sub> aryl-carbonylamino group optionally substituted by 1 to 3
substituent(s) selected from a halogen atom, a cyano group, an optionally
halogenated $C_{1-6}$ alkyl group, a $C_{1-6}$ alkoxy group, a carboxyl group, a $C_{1-6}$ alkoxy-
carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic
group and a carbamoyl group;
(6m) a C <sub>7-13</sub> aralkyl-carbonylamino group;
(6n) a C <sub>8-13</sub> arylalkenyl-carbonylamino group;
(6o) an aromatic heterocyclyl-carbonylamino group optionally
substituted by 1 to 3 substituent(s) selected from a $C_{1-6}$ alkyl group, a $C_{6-14}$ aryl
group, a $C_{7-13}$ aralkyl group, a $C_{1-6}$ alkoxy group, a carboxyl group, a $C_{1-6}$ alkoxy-
carbonyl group and a carbamoyl group;
(6p) a nitrogen-containing heterocyclyl-carbonylamino group
optionally substituted by 1 to 3 substituent(s) selected from a C <sub>1-6</sub> alkyl group (the

C <sub>1-6</sub> alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a
carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group), a carboxyl
group, a C <sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group;
(6q) a C <sub>6-14</sub> aryl-nitrogen-containing heterocyclyl-carbonylamino
group;
(6r) a tetrahydropyranylcarbonylamino group;
(6s) a 4-oxo-4,5,6,7-tetrahydro-1-benzofuranyl-carbonylamino
group;
(6t) a C <sub>1-6</sub> alkoxy-carbonylamino group optionally substituted by a
C <sub>1-6</sub> alkoxy-carbonyl group;
(6u) a C <sub>6-14</sub> aryloxy-carbonylamino group optionally substituted by 1
to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-carbonyl group
and a carbamoyl group;
(6v) a C <sub>7-13</sub> aralkyl-carbamoylamino group; or
(6w) an aromatic heterocyclyl-carbamoylamino group optionally
substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C <sub>1-6</sub> alkoxy-
carbonyl group and a carbamoyl group; or
(7) (7a) tetrazolyl;
(7b) oxoimidazolidinyl;
(7c) dioxoimidazolidinyl optionally substituted by a C <sub>1-6</sub> alkyl group
optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and
a C <sub>1-6</sub> alkoxy-carbonyl group;
(7d) oxopiperazinyl;
(7e) dioxopiperazinyl;
(7f) oxodihydrooxadiazolyl;
(7g) dioxoisoindolyl;
(7h) oxazolyl optionally substituted by a C <sub>1-6</sub> alkoxy-carbonyl group;
(7i) dioxooxazolidinyl or dioxothiazolidinyl, each of which is
optionally substituted by a $C_{1-6}$ alkyl group optionally substituted by 1 to 3
substituent(s) selected from a carboxyl group and a C <sub>1-6</sub> alkoxy-carbonyl group;
(7j) 4-oxo-2-thioxo-1,3-thiazolidin-5-yl or 4-oxo-2-thioxo-1,3-

Docket No.: 66540(46590) Application No. 10/577,561 24 Amendment dated February 4, 2009

oxazolidin-5-yl, each of which is optionally substituted by a C<sub>1-6</sub> alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C<sub>1-6</sub> alkoxy-carbonyl group; (7k) 1,3(2H,5H)-dioxo-tetrahydroimidazo[1,5-a]pyridinyl; (7I) 1,3(2H,5H)-dioxo-10,10a-dihydroimidazo[1,5-b]isoquinolinyl; or (7m) a C<sub>6-14</sub> aryl group optionally substituted by a C<sub>1-6</sub> alkoxy-

carbonyl group;

Reply to Office Action of September 5, 2008

or a salt thereof, which comprises subjecting a compound represented by the formula

$$\begin{array}{c|c}
R^2 & N & R^1 \\
\hline
Xa-Q & La-CN \\
R^3 & (II)
\end{array}$$

wherein each symbol is as defined above, or a salt thereof to a reduction reaction.

- (New) The compound of claim 22, wherein R<sup>3</sup> is a phenyl group 37. optionally substituted by 1 to 3 substituent(s) selected from a C<sub>1-6</sub> alkyl group optionally substituted by 1 to 3 halogen atom(s) and a halogen atom.
  - (New) The compound of claim 22, wherein X is 38.
  - (3) (3a) a carboxyl group;

(3b) a carbamoyl group;

(3c) a C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a C<sub>1-6</sub> alkyl-carbonyloxy group;

(3d) an aromatic heterocyclyl-C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group and a C<sub>1-6</sub> alkoxy-carbonyl group;

25

- (3e) a non-aromatic heterocyclyl-C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by a C<sub>1-6</sub> alkyl group;
- (3g) a carbamoyl group mono- or di-substituted by a C<sub>1-6</sub> alkyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom and a C<sub>1-6</sub> alkoxy group;
- (3h) a carbamoyl-C<sub>1-6</sub> alkyl-carbamoyl group optionally mono- or disubstituted by a C<sub>1-6</sub> alkyl group optionally substituted by 1 to 3 halogen atom(s);
- (3i) a  $C_{1-6}$  alkoxy-carbonyl- $C_{1-6}$  alkyl-carbamoyl group optionally substituted by a  $C_{1-6}$  alkyl group;
- (3j) a mono- or di- $C_{3-10}$  cycloalkyl-carbamoyl group optionally substituted by a  $C_{1-6}$  alkyl group;
- (3k) a  $C_{7-13}$  aralkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group, a  $C_{1-6}$  alkoxy-carbonyl group and a  $C_{1-6}$  alkyl group;
- (3I) an aromatic heterocyclyl-C<sub>1-6</sub> alkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C<sub>1-6</sub> alkoxy-carbonyl group;
  - (3r) a non-aromatic heterocyclyloxy-carbonyl group;
- (4) (4b) a C<sub>1-10</sub> alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C<sub>1-6</sub> alkoxy-carbonyl group;
- (4c) a  $C_{6-14}$  aryloxy group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, a  $C_{1-6}$  alkoxycarbonyl group, a  $C_{1-6}$  alkylthio group, a carbamoyl group, a  $C_{1-6}$  alkylsulfonyl group, a  $C_{1-6}$  alkylsulfinyl group and a  $C_{1-6}$  alkyl group (the  $C_{1-6}$  alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a  $C_{1-6}$  alkoxy-carbonyl group and a carbamoyl group);
- (4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a  $C_{1-6}$  alkyl group (the  $C_{1-6}$  alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a  $C_{1-6}$  alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a

C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group;

(6) (6d) a C<sub>7-13</sub> aralkyloxy-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group;

26

- (6l) a C<sub>6-14</sub> aryl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a cyano group, an optionally halogenated C<sub>1-6</sub> alkyl group, a C<sub>1-6</sub> alkoxy group, a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group;
- (6o) an aromatic heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C<sub>1-6</sub> alkyl group, a C<sub>6-14</sub> aryl group, a C<sub>7-13</sub> aralkyl group, a C<sub>1-6</sub> alkoxy group, a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group; or
- (6p) a nitrogen-containing heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C<sub>1-6</sub> alkyl group (the C<sub>1-6</sub> alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group.
  - 39. (New) The compound of claim 22, wherein X is
  - (3) (3a) a carboxyl group;
    - (3b) a carbamoyl group;
- (3c) a  $C_{1-6}$  alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a  $C_{1-6}$  alkoxy-carbonyl group and a  $C_{1-6}$  alkyl-carbonyloxy group;
- (3d) an aromatic heterocyclyl-C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group and a C<sub>1-6</sub> alkoxy-carbonyl group;
- (3e) a non-aromatic heterocyclyl-C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by a C<sub>1-6</sub> alkyl group;
  - (3g) a carbamoyl group mono- or di-substituted by a C<sub>1-6</sub> alkyl

group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom and a C<sub>1-6</sub> alkoxy group;

- (3h) a carbamoyl-C<sub>1-6</sub> alkyl-carbamoyl group optionally mono- or disubstituted by a C<sub>1-6</sub> alkyl group optionally substituted by 1 to 3 halogen atom(s);
- (3i) a  $C_{1-6}$  alkoxy-carbonyl- $C_{1-6}$  alkyl-carbamoyl group optionally substituted by a  $C_{1-6}$  alkyl group;
- (3j) a mono- or di-C<sub>3-10</sub> cycloalkyl-carbamoyl group optionally substituted by a C<sub>1-6</sub> alkyl group;
- (3k) a  $C_{7-13}$  aralkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group, a  $C_{1-6}$  alkoxy-carbonyl group and a  $C_{1-6}$  alkyl group;
- (3I) an aromatic heterocyclyl-C<sub>1-6</sub> alkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C<sub>1-6</sub> alkoxy-carbonyl group; or
  - (3r) a non-aromatic heterocyclyloxy-carbonyl group.
  - 40. (New) The compound of claim 22, wherein X is
  - (3) (3a) a carboxyl group;
- (3e) a non-aromatic heterocyclyl-C<sub>1-6</sub> alkoxy-carbonyl group optionally substituted by a C<sub>1-6</sub> alkyl group; or
  - (3r) a non-aromatic heterocyclyloxy-carbonyl group.
  - 41. (New) The compound of claim 22, wherein X is
- (4) (4b) a C<sub>1-10</sub> alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C<sub>1-6</sub> alkoxy-carbonyl group;
- (4c) a  $C_{6-14}$  aryloxy group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, a  $C_{1-6}$  alkoxycarbonyl group, a  $C_{1-6}$  alkylthio group, a carbamoyl group, a  $C_{1-6}$  alkylsulfonyl group, a  $C_{1-6}$  alkylsulfinyl group and a  $C_{1-6}$  alkyl group (the  $C_{1-6}$  alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a  $C_{1-6}$  alkoxy-carbonyl group and a carbamoyl group); or

- (4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a C<sub>1-6</sub> alkyl group (the C<sub>1-6</sub> alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group.
  - 42. (New) The compound of claim 22, wherein X is
- (6) (6d) a C<sub>7-13</sub> aralkyloxy-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group and a carbamoyl group;
- (6l) a C<sub>6-14</sub> aryl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a cyano group, an optionally halogenated C<sub>1-6</sub> alkyl group, a C<sub>1-6</sub> alkoxy group, a carboxyl group, a C<sub>1-6</sub> alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group;
- (6o) an aromatic heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a  $C_{1-6}$  alkyl group, a  $C_{6-14}$  aryl group, a  $C_{7-13}$  aralkyl group, a  $C_{1-6}$  alkoxy group, a carboxyl group, a  $C_{1-6}$  alkoxy-carbonyl group and a carbamoyl group; or
- (6p) a nitrogen-containing heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a  $c_{1-6}$  alkyl group (the  $c_{1-6}$  alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a  $c_{1-6}$  alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a  $c_{1-6}$  alkoxy-carbonyl group and a carbamoyl group.